UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,768	07/30/2003	Akira Katou	1614.1354	7690

21171 7590 06/10/2008
STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER	
DWIVEDI, MAHESH H	

ART UNIT	PAPER NUMBER
2168	

MAIL DATE	DELIVERY MODE
06/10/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/629,768	KATOU ET AL.	
	Examiner	Art Unit	
	MAHESH H. DWIVEDI	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-7,9-11,13-17 and 19-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-7,9-11,13-17 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *7/20/03* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. Receipt of Applicant's Amendment, filed on 04/24/2008, is acknowledged. The amendment includes the amending of claims 1, 4, 6, 9, 11, 14, 16, 19, and 23, and the cancellation of claims 3, 8, 12, and 18.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-2, 5-7, 10-11, 13, 15-17, and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Fujieda** (U.S. PGPUB 2001/0007997) in view of **Chartier et al.** (U.S. Patent 6,636,211).

6. Regarding claim 1, **Fujieda** teaches a system comprising:

A) a storage section, formed by hardware, configured to store file information in units of generations (Paragraphs 143-144, 146-150, Figures 9-10);
B) each file information having a different generation before and after a modification by an editing process (Paragraphs 143-144, 146-150, Figures 9-10);
C) an inter-file correspondence table, formed by hardware, configured to store corresponding relationships of the file information stored in the storage, including generation information (Paragraphs 121-122, 143-144, 146-150, Figures 7, and 9-10); and
F) a processing unit configured to refer to the inter-file correspondence table to display relationships of the file information corresponding to the icon data (Paragraphs 143-144, 146-150, Figures 9-10);
G) wherein a modification of one of two related units of file information by the editing process affects the other of the two units of related file information, including generation information (Paragraphs 121-122, and 146-148, Figures 7, and 9-10); and
H) the processing unit displays on the display unit the relationships of the file information, having different generations (Paragraphs 143-144, 146-150, Figures 9-10).

The examiner notes that **Fujieda** teaches **"a storage section, formed by hardware, configured to store file information in units of generations"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up

with ease" (Paragraphs 149-150). The examiner further wishes to state that Figure 10 of **Fujieda** clearly shows multiple versions of the same part (Rear Cushion 1 in Phase 1 and Rear Cushion 2 in Phase 2). The examiner further notes that **Fujieda** teaches **"each file information having a different generation before and after a modification by an editing process"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further wishes to state that Figure 10 of **Fujieda** clearly shows multiple versions of the same part (Rear Cushion 1 in Phase 1 and Rear Cushion 2 in Phase 2). The examiner further notes that **Fujieda** teaches **"an inter-file correspondence table, formed by hardware, configured to store corresponding relationships of the file information stored in the storage, including generation information"** as "If, in the three-view drawing, the content of the part column 60a or of the title columns 60b is modified, the CPU 40a detects such modification and simultaneously modifies the attribute data assigned to the corresponding model stored in the HDD 40d as well as the content shown in the attribute view. In cases where the attribute data assigned to the model has been modified, the part column 60a and title columns 60b of the three-view drawing and also the display content of the attribute view are simultaneously modified" (Paragraphs 121-122), "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the

model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144), and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further notes that **Fujieda** teaches **"a processing unit configured to refer to the inter-file correspondence table to display relationships of the file information corresponding to the icon data"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further wishes to state that Figure 10 of **Fujieda** clearly shows the relationship of the various parts in a tree structure with both Phase 1 and Phase 2. The examiner further notes that **Fujieda** teaches **"wherein a modification of one of two related units of file information by the editing process affects the other of the two units of related file**

information, including generation information" as "If, in the three-view drawing, the content of the part column 60a or of the title columns 60b is modified, the CPU 40a detects such modification and simultaneously modifies the attribute data assigned to the corresponding model stored in the HDD 40d as well as the content shown in the attribute view. In cases where the attribute data assigned to the model has been modified, the part column 60a and title columns 60b of the three-view drawing and also the display content of the attribute view are simultaneously modified" (Paragraphs 121-122), and "If, in a PDM configuration view shown in FIG. 10, trial manufacture of "Rear Suspension", for example, is requested, the CPU 40a judges that a transition of phases has occurred. Accordingly, the CPU registers the bulk data of the rear suspension in the HDD 40d as phase-#1 bulk data, prohibits modification or revision of the bulk data, and sets the status of the bulk data to "Master". Subsequently, the CPU 40a copies the phase-#1 bulk data of the rear suspension to a predetermined area of the HDD 40d and sets the copy as phase #2. All subsequent revisions are made with respect to the phase-#2 data" (Paragraphs 146-147). The examiner further notes that **Fujieda** teaches **"the processing unit displays on the display unit the relationships of the file information, having different generations"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150).

Fujieda does not explicitly teach:

D) an icon storage, formed by hardware, configured to store icon data corresponding to the file information;

E) said icon data including an image representative of a CAD image corresponding to the file information; and

F) a processing unit configured to refer to the icon storage and to display, on the display unit, icon data of the file information stored in the storage section in units of generations; and

H) corresponding to the icon data and by lines connecting related icon data.

Chartier, however, teaches **"an icon storage, formed by hardware, configured to store icon data corresponding to the file information"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2), **"said icon data including an image representative of a CAD image corresponding to the file information"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably

rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2), **"a processing unit configured to refer to the icon storage and to display, on the display unit, icon data of the file information stored in the storage section in units of generations"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2), and **"corresponding to the icon data and by lines connecting related icon data"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Chartier's** would have allowed **Fujieda's** to provide a method for an improved system and method for displaying the features of a complex three-dimensional object which

simplifies the identification and selection of features, as noted by **Chartier** (Column 2, lines 32-35).

Regarding claim 2, **Fujieda** further teaches a system comprising:
A) an input controller configured to detect an input to the CAD generation management system (Paragraphs 145-150, Figure 10); and
B) said processing unit displaying on the display unit the relationships of selected icon data with emphasis when the input controller detects an input selecting the selected icon data from the displayed icon data (Paragraphs 145-150, Figure 10).

The examiner notes that **Fujieda** teaches **"an input controller configured to detect an input to the CAD generation management system"** as "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further notes that Figure 10 clearly shows that as a result of a user action to the rear-suspension button in interface 70, interfaces 71 and 72 appear. The examiner further notes that **Fujieda** teaches **"said processing unit displaying on the display unit the relationships of selected icon data with emphasis when the input controller detects an input selecting the selected icon data from the displayed icon data"** as "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The

examiner further notes that Figure 10 clearly shows that as a result of a user action to the rear-suspension button in interface 70, interfaces 71 and 72 appear.

Regarding claim 5, **Fujieda** further teaches a system comprising:
A) means for acquiring a CAD program and/or the file information via one or more networks (Paragraphs 42 and 65, Figure 1).

The examiner notes that **Fujieda** teaches **"means for acquiring a CAD program and/or the file information via one or more networks"** as "When bulk data of a certain model is necessary, an inquiry is made with respect to the first server 1, and the corresponding meta-data and decryption key are acquired and transmitted to the terminal which has made the request. Accordingly, bulk data, which has a vast amount of information, need not be transferred from the second server to the first server 1, and thus the network can be prevented from being overloaded" (Paragraph 65). The examiner further wishes to state that Figure 1 clearly shows various terminals 3-1, 3-2, and 3-3 having network access to CAD material located on servers 1 and 2.

Regarding claim 6, **Fujieda** teaches a system comprising:
A) a storage section, formed by hardware, configured to store font information in units of generations (Paragraphs 143-144, 146-150, Figures 9-10);
D) a third storage, formed by hardware, configured to store the generation information of the file information, each file information having different generations before and after a modification by an editing process (Paragraphs 143-144, 146-150, Figures 9-10);
E) a processing unit configured to refer to the generation information stored in the third storage in response to an instruction to display generation information of target file information (Paragraphs 143-144, 146-150, Figures 9-10);
F) wherein a modification of one of two related units of file information by the editing process affects the other of the two related units of file information, including the generation information (Paragraphs 121-122, and 146-148, Figures 7, and 9-10); and
G) the processing unit displays on the display unit the relationships of the file information, having different generations (Paragraphs 143-144, 146-150, Figures 9-10).

The examiner notes that **Fujieda** teaches **"a storage section, formed by hardware, configured to store font information in units of generations"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further wishes to state that Figure 10 of **Fujieda** clearly shows multiple versions of the same part (Rear Cushion 1 in Phase 1 and Rear Cushion 2 in Phase 2). The examiner further notes that **Fujieda** teaches **"a third storage, formed by hardware, configured to store the generation information of the file information, each file information having different generations before and after a modification by an editing process"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension

Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further wishes to state that Figure 10 of **Fujieda** clearly shows multiple versions of the same part (Rear Cushion 1 in Phase 1 and Rear Cushion 2 in Phase 2). The examiner further notes that **Fujieda** teaches **"a processing unit configured to refer to the generation information stored in the third storage in response to an instruction to display generation information of target file information"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further wishes to state that Figure 10 of **Fujieda** clearly shows the relationship of the various parts in a tree structure with both Phase 1 and Phase 2. The examiner further notes that **Fujieda** teaches **"wherein a modification of one of two related units of file information by the editing process affects the other of the two related units of file information, including the generation information"** as "If, in the three-view drawing, the content of the part column 60a or of the title columns 60b is modified, the CPU 40a detects such modification and simultaneously modifies the attribute data assigned to the corresponding model stored in the HDD 40d as well as the content shown in the attribute view. In cases where the attribute data assigned to the model has been modified, the part column 60a and title columns 60b of the three-view drawing and also

the display content of the attribute view are simultaneously modified" (Paragraphs 121-122), and "If, in a PDM configuration view shown in FIG. 10, trial manufacture of "Rear Suspension", for example, is requested, the CPU 40a judges that a transition of phases has occurred. Accordingly, the CPU registers the bulk data of the rear suspension in the HDD 40d as phase-#1 bulk data, prohibits modification or revision of the bulk data, and sets the status of the bulk data to "Master". Subsequently, the CPU 40a copies the phase-#1 bulk data of the rear suspension to a predetermined area of the HDD 40d and sets the copy as phase #2. All subsequent revisions are made with respect to the phase-#2 data" (Paragraphs 146-147). The examiner further notes that **Fujieda** teaches **"the processing unit displays on the display unit the relationships of the file information, corresponding to the icon data and having different generations, by lines connecting related icon data"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150).

Fujieda does not explicitly teach:

B) a second storage, formed by hardware, configured to store icon data indicating file information;

C) said icon data including an image representative of a CAD image corresponding to the file information;

E) a processing unit configured to create and display, on the display unit, the icon data related to the generation information to be displayed on the display unit by combining the font information stored in the first storage and the icon data stored in the second storage; and

G) corresponding to the icon data and by lines connecting related icon data.

Chartier, however, teaches **"a second storage, formed by hardware, configured to store icon data indicating file information"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2), **"said icon data including an image representative of a CAD image corresponding to the file information"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2), **"a processing unit configured to create and display, on the display unit, the icon**

data related to the generation information to be displayed on the display unit by combining the font information stored in the first storage and the icon data stored in the second storage" as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2), and **"corresponding to the icon data and by lines connecting related icon data"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Chartier's** would have allowed **Fujieda's** to provide a method for an improved system and method for displaying the features of a complex three-dimensional object which simplifies the identification and selection of features, as noted by **Chartier** (Column 2, lines 32-35).

Regarding claim 7, **Fujieda** further teaches a system comprising:
A) an input controller configured to detect an input to the CAD generation management system, including the instruction (Paragraphs 145-150, Figure 10); and
B) said processing unit displaying on the display unit the relationships of selected icon data with emphasis when the input controller detects an input selecting the selected icon data from the displayed icon data (Paragraphs 145-150, Figure 10).

The examiner notes that **Fujieda** teaches **"an input controller configured to detect an input to the CAD generation management system, including the instruction"** as "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further notes that Figure 10 clearly shows that as a result of a user action to the rear-suspension button in interface 70, interfaces 71 and 72 appear. The examiner further notes that **Fujieda** teaches **"said processing unit displaying on the display unit the relationships of selected icon data with emphasis when the input controller detects an input selecting the selected icon data from the displayed icon data"** as "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further notes that Figure 10 clearly shows that as a result of a user action to the rear-suspension button in interface 70, interfaces 71 and 72 appear.

Regarding claim 10, **Fujieda** further teaches a system comprising:
A) means for acquiring a CAD program and/or the file information via one or more networks (Paragraphs 42 and 65, Figure 1).

The examiner notes that **Fujieda** teaches **"means for acquiring a CAD program and/or the file information via one or more networks"** as "When bulk data of a certain model is necessary, an inquiry is made with respect to the first server 1, and the corresponding meta-data and decryption key are acquired and transmitted to the terminal which has made the request. Accordingly, bulk data, which has a vast amount of information, need not be transferred from the second server to the first server 1, and thus the network can be prevented from being overloaded" (Paragraph 65). The examiner further wishes to state that Figure 1 clearly shows various terminals 3-1, 3-2, and 3-3 having network access to CAD material located on servers 1 and 2.

Regarding claim 11, **Fujieda** teaches a computer-readable storage medium comprising:
A) a procedure to cause the computer to store file information in a storage in units of generations (Paragraphs 143-144, 146-150, Figures 9-10);
B) each file information having a different generation before and after a modification by an editing process (Paragraphs 143-144, 146-150, Figures 9-10);
C) a procedure to cause the computer to store corresponding relationships of the file information stored in the storage, including generation information, in an inter-file correspondence table (Paragraphs 121-122, 143-144, 146-150, Figures 7, and 9-10); and
F) a control procedure to cause the computer to refer to the inter-file correspondence table to display relationships of the file information corresponding to the icon data (Paragraphs 143-144, 146-150, Figures 9-10);
G) an editing procedure to cause the computer to carry out the editing process in which a modification of one of two related units of file information affects the other of the two

related units of file information, including generation information (Paragraphs 121-122, and 146-148, Figures 7, and 9-10); and

H) wherein the control procedure causes the computer to display the relationships of the file information, having different generations (Paragraphs 143-144, 146-150, Figures 9-10).

The examiner notes that **Fujieda** teaches **"a procedure to cause the computer to store file information in a storage in units of generations"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further wishes to state that Figure 10 of **Fujieda** clearly shows multiple versions of the same part (Rear Cushion 1 in Phase 1 and Rear Cushion 2 in Phase 2). The examiner further notes that **Fujieda** teaches **"each file information having a different generation before and after a modification by an editing process"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest

phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further wishes to state that Figure 10 of **Fujieda** clearly shows multiple versions of the same part (Rear Cushion 1 in Phase 1 and Rear Cushion 2 in Phase 2). The examiner further notes that **Fujieda** teaches **"a procedure to cause the computer to store corresponding relationships of the file information stored in the storage, including generation information, in an inter-file correspondence table"** as "If, in the three-view drawing, the content of the part column 60a or of the title columns 60b is modified, the CPU 40a detects such modification and simultaneously modifies the attribute data assigned to the corresponding model stored in the HDD 40d as well as the content shown in the attribute view. In cases where the attribute data assigned to the model has been modified, the part column 60a and title columns 60b of the three-view drawing and also the display content of the attribute view are simultaneously modified" (Paragraphs 121-122), "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144), and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further

notes that **Fujieda** teaches **"a control procedure to cause the computer to refer to the inter-file correspondence table to display relationships of the file information corresponding to the icon data"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further wishes to state that Figure 10 of **Fujieda** clearly shows the relationship of the various parts in a tree structure with both Phase 1 and Phase 2. The examiner further notes that **Fujieda** teaches **"an editing procedure to cause the computer to carry out the editing process in which a modification of one of two related units of file information affects the other of the two related units of file information, including generation information"** as "If, in the three-view drawing, the content of the part column 60a or of the title columns 60b is modified, the CPU 40a detects such modification and simultaneously modifies the attribute data assigned to the corresponding model stored in the HDD 40d as well as the content shown in the attribute view. In cases where the attribute data assigned to the model has been modified, the part column 60a and title columns 60b of the three-view drawing and also the display content of the attribute view are simultaneously modified" (Paragraphs 121-122), and "If, in a PDM configuration view shown in FIG. 10, trial manufacture of "Rear Suspension", for example, is requested, the CPU 40a judges that a transition of phases has occurred. Accordingly, the CPU registers the bulk data of the rear suspension in the

HDD 40d as phase-#1 bulk data, prohibits modification or revision of the bulk data, and sets the status of the bulk data to "Master". Subsequently, the CPU 40a copies the phase-#1 bulk data of the rear suspension to a predetermined area of the HDD 40d and sets the copy as phase #2. All subsequent revisions are made with respect to the phase-#2 data" (Paragraphs 146-147). The examiner further notes that **Fujieda** teaches **"wherein the control procedure causes the computer to display the relationships of the file information, having different generations"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150).

Fujieda does not explicitly teach:

D) a procedure to cause the computer to store icon data corresponding to the file information in an icon storage;

E) said icon data including an image representative of a CAD image corresponding to the file information;

F) a control procedure to cause the computer to refer to the inter-file correspondence table and the icon storage and to display icon data of the file information stored in the storage section in units of generations; and

H) corresponding to the icon data and by lines connecting related icon data.

Chartier, however, teaches **"a procedure to cause the computer to store icon data corresponding to the file information in an icon storage"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2), **"said icon data including an image representative of a CAD image corresponding to the file information"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2), **"a control procedure to cause the computer to refer to the inter-file correspondence table and the icon storage and to display icon data of the file information stored in the storage section in units of generations"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to

produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2), and **"corresponding to the icon data and by lines connecting related icon data"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Chartier's** would have allowed **Fujieda's** to provide a method for an improved system and method for displaying the features of a complex three-dimensional object which simplifies the identification and selection of features, as noted by **Chartier** (Column 2, lines 32-35).

Regarding claim 12, **Fujieda** further teaches a computer-readable storage medium comprising:

A) an input procedure to cause the computer to detect an input to the computer (Paragraphs 145-150, Figure 10); and

B) said control procedure causing the computer to display the relationships of selected icon data with emphasis when the input controller detects an input selecting the selected icon data from the displayed icon data (Paragraphs 145-150, Figure 10).

The examiner notes that **Fujieda** teaches **"an input procedure to cause the computer to detect an input to the computer"** as "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further notes that Figure 10 clearly shows that as a result of a user action to the rear-suspension button in interface 70, interfaces 71 and 72 appear. The examiner further notes that **Fujieda** teaches **"said control procedure causing the computer to display the relationships of selected icon data with emphasis when the input controller detects an input selecting the selected icon data from the displayed icon data"** as "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further notes that Figure 10 clearly shows that as a result of a user action to the rear-suspension button in interface 70, interfaces 71 and 72 appear.

Regarding claim 15, **Fujieda** further teaches a computer readable storage medium comprising:

A) a procedure to cause the computer to acquire a CAD program and/or the file information via one or more networks (Paragraphs 42 and 65, Figure 1).

The examiner notes that **Fujieda** teaches **"a procedure to cause the computer to acquire a CAD program and/or the file information via one or more networks"** as "When bulk data of a certain model is necessary, an inquiry is made with respect to the first server 1, and the corresponding meta-data and decryption key are acquired and transmitted to the terminal which has made the request. Accordingly, bulk data, which has a vast amount of information, need not be transferred from the second server to the first server 1, and thus the network can be prevented from being overloaded" (Paragraph 65). The examiner further wishes to state that Figure 1 clearly shows various terminals 3-1, 3-2, and 3-3 having network access to CAD material located on servers 1 and 2.

Regarding claim 16, **Fujieda** teaches a computer storage medium comprising:
A) a procedure to cause the computer to store font information indicating generation information in a first storage (Paragraphs 143-144, 146-150, Figures 9-10);
D) a procedure to cause the computer to store the generation information of the file information in a third storage, each file information having different generations before and after a modification by an editing process (Paragraphs 143-144, 146-150, Figures 9-10);
E) a control procedure to cause the computer to refer to the generation information stored in the third storage in response to an instruction to display information of target file information (Paragraphs 143-144, 146-150, Figures 9-10);
F) an editing procedure to cause the computer to carry out the editing process in which a modification of one of two related units of file information affects the other of the two related units of file information, including generation information (Paragraphs 121-122, and 146-148, Figures 7, and 9-10);
G) wherein the control procedure causes the computer to display the relationships of the file information, having different generations (Paragraphs 143-144, 146-150, Figures 9-10)

The examiner notes that **Fujieda** teaches **"a procedure to cause the computer to store font information indicating generation information in a first storage"** as

"In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further wishes to state that Figure 10 of **Fujieda** clearly shows multiple versions of the same part (Rear Cushion 1 in Phase 1 and Rear Cushion 2 in Phase 2). The examiner further notes that **Fujieda** teaches **"a procedure to cause the computer to store the generation information of the file information in a third storage, each file information having different generations before and after a modification by an editing process"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150).

The examiner further wishes to state that Figure 10 of **Fujieda** clearly shows multiple versions of the same part (Rear Cushion 1 in Phase 1 and Rear Cushion 2 in Phase 2). The examiner further notes that **Fujieda** teaches **"a control procedure to cause the computer to refer to the generation information stored in the third storage in response to an instruction to display information of target file information"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further wishes to state that Figure 10 of **Fujieda** clearly shows the relationship of the various parts in a tree structure with both Phase 1 and Phase 2. The examiner further notes that **Fujieda** teaches **"an editing procedure to cause the computer to carry out the editing process in which a modification of one of two related units of file information affects the other of the two related units of file information, including generation information"** as "If, in the three-view drawing, the content of the part column 60a or of the title columns 60b is modified, the CPU 40a detects such modification and simultaneously modifies the attribute data assigned to the corresponding model stored in the HDD 40d as well as the content shown in the attribute view. In cases where the attribute data assigned to the model has been modified, the part column 60a and title columns 60b of the three-view drawing and also the display content of the attribute view are simultaneously modified" (Paragraphs 121-122), and "If, in a PDM configuration view shown in FIG. 10,

trial manufacture of "Rear Suspension", for example, is requested, the CPU 40a judges that a transition of phases has occurred. Accordingly, the CPU registers the bulk data of the rear suspension in the HDD 40d as phase-#1 bulk data, prohibits modification or revision of the bulk data, and sets the status of the bulk data to "Master". Subsequently, the CPU 40a copies the phase-#1 bulk data of the rear suspension to a predetermined area of the HDD 40d and sets the copy as phase #2. All subsequent revisions are made with respect to the phase-#2 data" (Paragraphs 146-147). The examiner further notes that **Fujieda** teaches "**wherein the control procedure causes the computer to display the relationships of the file information, having different generations**" as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150).

Fujieda does not explicitly teach:

B) a procedure to cause the computer to store icon data indicating file information in a second storage;

C) said icon data including an image representative of a CAD image corresponding to the file information;

E) a control procedure to cause the computer to create and display icon data related to the generation information to be displayed by combining the font information stored in the first storage and the icon data stored in the second storage;

G) corresponding to the icon data and by lines connecting related icon data.

Chartier, however, teaches **"a procedure to cause the computer to store icon data indicating file information in a second storage"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2), **"said icon data including an image representative of a CAD image corresponding to the file information"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2), **"a control procedure to cause the computer to create and display icon data related to the generation information to be displayed by combining the font information stored in the first storage and the icon data stored in the second storage"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number

of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2), and **"corresponding to the icon data and by lines connecting related icon data"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Chartier's** would have allowed **Fujieda's** to provide a method for an improved system and method for displaying the features of a complex three-dimensional object which simplifies the identification and selection of features, as noted by **Chartier** (Column 2, lines 32-35).

Regarding claim 17, **Fujieda** further teaches a computer-readable storage medium comprising:

A) an input procedure to cause the computer to detect an input to the computer, including the instruction (Paragraphs 145-150, Figure 10); and
B) said control procedure causing the computer to display the relationships of selected icon data with emphasis when the input controller detects an input selecting the selected icon data from the displayed icon data (Paragraphs 145-150, Figure 10).

The examiner notes that **Fujieda** teaches **"an input procedure to cause the computer to detect an input to the computer, including the instruction"** as "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further notes that Figure 10 clearly shows that as a result of a user action to the rear-suspension button in interface 70, interfaces 71 and 72 appear. The examiner further notes that **Fujieda** teaches **"said control procedure causing the computer to display the relationships of selected icon data with emphasis when the input controller detects an input selecting the selected icon data from the displayed icon data"** as "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further notes that Figure 10 clearly shows that as a result of a user action to the rear-suspension button in interface 70, interfaces 71 and 72 appear.

Regarding claim 20, **Fujieda** further teaches a computer readable storage medium comprising:

A) a procedure to cause the computer to acquire a CAD program and/or the file information via one or more networks (Paragraphs 42 and 65, Figure 1).

The examiner notes that **Fujieda** teaches **"a procedure to cause the computer to acquire a CAD program and/or the file information via one or more networks"** as "When bulk data of a certain model is necessary, an inquiry is made with respect to the first server 1, and the corresponding meta-data and decryption key are acquired and transmitted to the terminal which has made the request. Accordingly, bulk data, which has a vast amount of information, need not be transferred from the second server to the first server 1, and thus the network can be prevented from being overloaded" (Paragraph 65). The examiner further wishes to state that Figure 1 clearly shows various terminals 3-1, 3-2, and 3-3 having network access to CAD material located on servers 1 and 2.

Regarding claim 21, **Fujieda** further teaches a system comprising:
A) wherein the processing unit carries out the editing process in response to an input from the input device (Paragraphs 121-122, and 146-148, Figures 7, and 9-10).

The examiner notes that **Fujieda** teaches **"wherein the processing unit carries out the editing process in response to an input from the input device"** as "If, in the three-view drawing, the content of the part column 60a or of the title columns 60b is modified, the CPU 40a detects such modification and simultaneously modifies the attribute data assigned to the corresponding model stored in the HDD 40d as well as the content shown in the attribute view. In cases where the attribute data assigned to the model has been modified, the part column 60a and title columns 60b of the three-view drawing and also the display content of the attribute view are simultaneously modified" (Paragraphs 121-122), and "If, in a PDM configuration view shown in FIG. 10, trial manufacture of "Rear Suspension", for example, is requested, the CPU 40a judges that a transition of phases has occurred. Accordingly, the CPU registers the bulk data of the rear suspension in the HDD 40d as phase-#1 bulk data, prohibits modification or revision of the bulk data, and sets the status of the bulk data to "Master". Subsequently, the CPU 40a copies the phase-#1 bulk data of the rear suspension to a predetermined

area of the HDD 40d and sets the copy as phase #2. All subsequent revisions are made with respect to the phase-#2 data" (Paragraphs 146-147).

Regarding claim 22, **Fujieda** further teaches a system comprising:
A) wherein the processing unit carries out the editing process in response to an input from the input device (Paragraphs 121-122, and 146-148, Figures 7, and 9-10).

The examiner notes that **Fujieda** teaches **"wherein the processing unit carries out the editing process in response to an input from the input device"** as "If, in the three-view drawing, the content of the part column 60a or of the title columns 60b is modified, the CPU 40a detects such modification and simultaneously modifies the attribute data assigned to the corresponding model stored in the HDD 40d as well as the content shown in the attribute view. In cases where the attribute data assigned to the model has been modified, the part column 60a and title columns 60b of the three-view drawing and also the display content of the attribute view are simultaneously modified" (Paragraphs 121-122), and "If, in a PDM configuration view shown in FIG. 10, trial manufacture of "Rear Suspension", for example, is requested, the CPU 40a judges that a transition of phases has occurred. Accordingly, the CPU registers the bulk data of the rear suspension in the HDD 40d as phase-#1 bulk data, prohibits modification or revision of the bulk data, and sets the status of the bulk data to "Master". Subsequently, the CPU 40a copies the phase-#1 bulk data of the rear suspension to a predetermined area of the HDD 40d and sets the copy as phase #2. All subsequent revisions are made with respect to the phase-#2 data" (Paragraphs 146-147).

Regarding claim 23, **Fujieda** teaches a method comprising:
A) storing a plurality of file information including respective generation information of each file information (Paragraphs 143-144, 146-150, Figures 9-10);
B) each file information having a different generation before and after a modification by an editing process (Paragraphs 143-144, 146-150, Figures 9-10);
C) interrelating the stored file information, based upon the respective generation information (Paragraphs 121-122, 143-144, 146-150, Figures 7, and 9-10); and

F) displaying the interrelationships of the stored file information using the respective corresponding icons (Paragraphs 143-144, 146-150, Figures 9-10);
G) wherein a modification of one of two related units of file information by the editing process affects the other of the two related units of file information, including the generation information (Paragraphs 121-122, and 146-148, Figures 7, and 9-10); and
H) the displaying displays the relationships of the file information, having different generations (Paragraphs 143-144, 146-150, Figures 9-10);).

The examiner notes that **Fujieda** teaches **"storing a plurality of file information including respective generation information of each file information"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further wishes to state that Figure 10 of **Fujieda** clearly shows multiple versions of the same part (Rear Cushion 1 in Phase 1 and Rear Cushion 2 in Phase 2). The examiner further notes that **Fujieda** teaches **"each file information having a different generation before and after a modification by an editing process"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the

management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further wishes to state that Figure 10 of **Fujieda** clearly shows multiple versions of the same part (Rear Cushion 1 in Phase 1 and Rear Cushion 2 in Phase 2). The examiner further notes that **Fujieda** teaches **"interrelating the stored file information, based upon the respective generation information"** as "If, in the three-view drawing, the content of the part column 60a or of the title columns 60b is modified, the CPU 40a detects such modification and simultaneously modifies the attribute data assigned to the corresponding model stored in the HDD 40d as well as the content shown in the attribute view. In cases where the attribute data assigned to the model has been modified, the part column 60a and title columns 60b of the three-view drawing and also the display content of the attribute view are simultaneously modified" (Paragraphs 121-122), "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144), and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up

with ease" (Paragraphs 149-150). The examiner further notes that **Fujieda** teaches **"displaying the interrelationships of the stored file information using the respective corresponding icons"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further wishes to state that Figure 10 of **Fujieda** clearly shows the relationship of the various parts in a tree structure with both Phase 1 and Phase 2. The examiner further notes that **Fujieda** teaches **"wherein a modification of one of two units of related file information by the editing process affects the other of the two related units of file information, including the generation information"** as "If, in the three-view drawing, the content of the part column 60a or of the title columns 60b is modified, the CPU 40a detects such modification and simultaneously modifies the attribute data assigned to the corresponding model stored in the HDD 40d as well as the content shown in the attribute view. In cases where the attribute data assigned to the model has been modified, the part column 60a and title columns 60b of the three-view drawing and also the display content of the attribute view are simultaneously modified" (Paragraphs 121-122), and "If, in a PDM configuration view shown in FIG. 10, trial manufacture of "Rear Suspension", for example, is requested, the CPU 40a judges that a transition of phases has occurred. Accordingly, the CPU registers the bulk data of the rear suspension in the HDD 40d as phase-#1 bulk data, prohibits modification or revision of the bulk data, and

sets the status of the bulk data to "Master". Subsequently, the CPU 40a copies the phase-#1 bulk data of the rear suspension to a predetermined area of the HDD 40d and sets the copy as phase #2. All subsequent revisions are made with respect to the phase-#2 data" (Paragraphs 146-147). The examiner further notes that **Fujieda** teaches **"the displaying displays the relationships of the file information, having different generations"** as "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150).

Fujieda does not explicitly teach:

D) corresponding an icon for each file information;

E) said icon information including an image representative of a CAD image corresponding to the file information; and

H) corresponding to the icon data and by lines connecting related icon data.

Chartier, however, teaches **"corresponding an icon for each file information"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical

manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2), **"said icon information including an image representative of a CAD image corresponding to the file information"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2), and **"corresponding to the icon data and by lines connecting related icon data"** as "Turning to FIG. 1, there is shown a representative display 10 of a graphical object 12 which has been created using a computerized design tool. The object 12 is comprised of a number of separate features, such as cylinders, holes, two-dimensional sketches, etc., which have been combined to produce the object. For each of these features, a corresponding miniature 16 has been defined. The miniatures 16 can be displayed in a feature tree 14 which, in this representation, is organized in a hierarchical manner to show how the various features have been combined to create the object. Other ways of displaying the relationship between various miniatures 16 can also be used. Each of the miniatures are preferably rendered in an orientation or rotation which corresponds to the rotation used to display to the object 12" (Column 3, lines 66-67-Column 4, lines 1-12, Figures 1-2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching

Chartier's would have allowed **Fujieda's** to provide a method for an improved system and method for displaying the features of a complex three-dimensional object which simplifies the identification and selection of features, as noted by **Chartier** (Column 2, lines 32-35).

7. Claims 4, 9, 14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Fujieda** (U.S. PGPUB 2001/0007997) in view of **Chartier et al.** (U.S. Patent 6,636,211) as applied to claims 1-2, 5-7, 10-11, 13, 15-17, and 20-23 and further in view of **Miller et al.** (U.S. Patent 6,661,437).

8. Regarding claim 4, **Fujieda** and **Chartier** do not explicitly teach a system comprising:

A) wherein a kind, a width and a color of the lines connecting the icon data are set differently for each generation.

Miller, however, teaches **"wherein a kind, a width and a color of the lines connecting the icon data are set differently for each generation"** as "In addition, both menu entry and exit points and previously selected menu items are identified (e.g., by dashed lines or dashed features or by highlighting, coloring, shading including three dimensional shading, or hatching" (Column 5, lines 20-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Miller's** would have allowed **Fujieda's** and **Chartier's** to provide a method for improving the ability for users to readily see the menu navigation of hierarchical tree structures, as noted by **Miller** (Column 5, lines 24-25).

Regarding claim 9, **Fujieda** and **Chartier** do not explicitly teach a system comprising:

A) wherein a kind, a width and a color of the lines connecting the icon data are set differently for each generation.

Miller, however, teaches **"wherein a kind, a width and a color of the lines connecting the icon data are set differently for each generation"** as "In addition, both menu entry and exit points and previously selected menu items are identified (e.g.,

by dashed lines or dashed features or by highlighting, coloring, shading including three dimensional shading, or hatching" (Column 5, lines 20-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Miller's** would have allowed **Fujieda's** and **Chartier's** to provide a method for improving the ability for users to readily see the menu navigation of hierarchical tree structures, as noted by **Miller** (Column 5, lines 24-25).

Regarding claim 14, **Fujieda** and **Chartier** do not explicitly teach a computer-readable storage medium comprising:
A) wherein a kind, a width and a color of the lines connecting the icon data are set differently for each generation.

Miller, however, teaches **"wherein a kind, a width and a color of the lines connecting the icon data are set differently for each generation"** as "In addition, both menu entry and exit points and previously selected menu items are identified (e.g., by dashed lines or dashed features or by highlighting, coloring, shading including three dimensional shading, or hatching" (Column 5, lines 20-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Miller's** would have allowed **Fujieda's** and **Chartier's** to provide a method for improving the ability for users to readily see the menu navigation of hierarchical tree structures, as noted by **Miller** (Column 5, lines 24-25).

Regarding claim 19, **Fujieda** and **Chartier** do not explicitly teach a computer-readable storage medium comprising:
A) wherein a kind, a width and a color of the lines connecting the icon data are set differently for each generation.

Miller, however, teaches **"wherein a kind, a width and a color of the lines connecting the icon data are set differently for each generation"** as "In addition, both menu entry and exit points and previously selected menu items are identified (e.g.,

by dashed lines or dashed features or by highlighting, coloring, shading including three dimensional shading, or hatching" (Column 5, lines 20-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Miller's** would have allowed **Fujieda's** and **Chartier's** to provide a method for improving the ability for users to readily see the menu navigation of hierarchical tree structures, as noted by **Miller** (Column 5, lines 24-25).

Response to Arguments

9. Applicant's arguments filed 04/24/2008 have been fully considered but they are not persuasive.

Applicants argue on page 8 that **"FIG. 10 of Fujieda showa that a plurality of parts are connected with lines. However, the plurality of parts which are connected by lines in the display of Fujieda all belong to the same phase. Accordingly, Applicants respectfully submit that Fujieda fails to disclose, either expressly or implicitly, the claimed...because the lines connecting the plurality of parts in FIG. 10 of Fujieda connect a plurality of parts in the same phase"**. However, the examiner wishes to refer to paragraphs 143-144, and 149-150 which state "In this embodiment, different phases are set for a model and the version number is assigned to each phase, thus making it possible to manage the model by the phase. In the illustrated example, a model A has three kinds of phase, phases #1 to #3, and the version number starting with "1" is assigned to each phase. By thus generating an independent version number for each phase for the management of the model, it is possible to acquire target data by using the phase as a clue" (Paragraphs 143-144) and "The PDM configuration view screen shows the latest phase, but it is also possible to display a plurality of phases on screen at the same time by executing a predetermined command etc. through operation of the input device 41. Such a screen is shown in FIG. 11, by way of example. In the illustrated example, "Rear Suspension Ph1" relating to phase #1 and "Rear Suspension Ph2" relating to phase #2 are shown on the same screen. This display screen permits the part or unit of a previous phase to be looked up with ease" (Paragraphs 149-150). The examiner further wishes to state that because

Figure 10 depicts the Rear Suspension as being modified (Rear Cushion 1 to rear Cushion 2), then as a result, that part is stored in multiple generations because the Phase 1 is different from the Phase 2 version. The examiner further wishes to state because the rear cushion is in a different generation from the rest of the parts, **Fujieda** teaches the aforementioned limitation.

Applicants argue on page 9 that **"Applicants respectively submit that Chartier fails to disclose, either expressly or implicitly, the claimed "wherein...the processing unit displays on the display unit the relationships of the file information...because the display of Chartier merely shows the components forming the part and does display relationships of icons of a plurality of parts of different generations by lines connecting the related icons"**. However, the examiner wishes to state that **Fujieda** teaches the aforementioned relationships and generations, and that Figure 1 of **Chartier** clearly teaches icons connected with lines on GUI display.

Applicants argue on page 9 that **"Applicants respectfully submit that a prima facie case of obviousness cannot be based upon Fujieda and Chartier because there is no evidence that one skilled in the art would combine Fujieda...as recited in claim 1"**. However, In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to provide a method for an improved system and method for displaying the features of a complex three-dimensional object which simplifies the identification and selection of features, as noted by **Chartier** (Column 2, lines 32-35) clearly allows for the combination of **Fujieda** with **Chartier** because both deal with CAD systems and displaying CAD components.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,557,002 issued to **Fujieda et al.** on 29 April 2003. The subject matter disclosed therein is pertinent to that of claims 1-23 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. Patent 6,944,515 issued to **Nakajima et al.** on 13 September 2005. The subject matter disclosed therein is pertinent to that of claims 1-23 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. PGPUB 2002/0080194 issued to **Fujieda et al.** on 27 June 2002. The subject matter disclosed therein is pertinent to that of claims 1-23 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. Patent 6,304,790 issued to **Nakamura et al.** on 16 October 2001. The subject matter disclosed therein is pertinent to that of claims 1-23 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. Patent 7,016,922 issued to **Sahoo** on 21 March 2006. The subject matter disclosed therein is pertinent to that of claims 1-23 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. Patent 6,760,735 issued to **Rusche** on 06 July 2004. The subject matter disclosed therein is pertinent to that of claims 1-23 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. PGPUB 2003/00218634 issued to **Kuchinsky et al.** on 27 November 2003. The subject matter disclosed therein is pertinent to that of claims 1-23 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. Patent 4,862,376 issued to **Ferriter et al.** on 29 August 1989. The subject matter disclosed therein is pertinent to that of claims 1-23 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. Patent 6,895,560 issued to **Das** on 24 May 2005. The subject matter disclosed therein is pertinent to that of claims 1-23 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. Patent 7,047,237 issued to **Suzuki et al.** on 16 May 2006. The subject matter disclosed therein is pertinent to that of claims 1-23 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. Patent 6,144,962 issued to **Weinberg et al.** on 07 November 2000. The subject matter disclosed therein is pertinent to that of claims 1-23 (e.g., methods to view icons).

The examiner notes that the **Fujieda** patent (U.S. Patent 6,577,002 displays analogous subject matter that is commonly owned by the assignee of the instant application.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mahesh Dwivedi whose telephone number is (571) 272-2731. The examiner can normally be reached on Monday to Friday 8:20 am – 4:40 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached (571) 272-3642. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mahesh Dwivedi
Patent Examiner
Art Unit 2168

May 29, 2008
/Mahesh H Dwivedi/
Examiner, Art Unit 2168

/Tim T. Vo/
Supervisory Patent Examiner, Art Unit 2168